

Date: Wednesday, 1/4/2006 2:35:27 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SHORT STEP ASSEMBLY
Job Number : 25387	
Estimate Number : 11672	
P.O. Number : N/A	Part Number : D350591121
This Issue : 1/4/2006 S.O. No. : N/A	Drawing Number : D2351 REV E
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : LARGE FAB ASSY	Drawing Revision : E
Previous Run : N/A	Material : N/A
Written By : SEE COMMENT BELOW	Due Date : 1/25/2006 Qty: 4 Um: Each
Checked & Approved By : SEE ABOVE USER & DATE	
Comment : Est Rev:E 02.10.21 Re-format; Incorporated D2351-041 IPP K J/RF	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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**Comment:** DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-121CHG003

06/01/30

2.0	D2244116	Step Extrusion
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**Comment:** Qty.: 0.5000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

0.5 D2244-128 Extrusion 300457

PG. 06.01.5 = 4

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2244-128 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G

2-Drill extrusion per Dwg D2351 using Jig DT8230 for rivets.

3-Deburr

PG. 06.01.5 = 4

4.0	BENDING	BENDING MACHINE
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**Comment:** BENDING MACHINE

Bend per Dwg D2351 using Bend Program D23561dD FT011

DP06-2-9 (4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

PD 06-02-13 = 4

6.0

D28501

End Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2850-1 End Bracket B10938

Pl 06-02-13 = 4

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Fwd and Aft end for welding

2-Weld Aft End Bracket per QSI 004 & Dwg D2351 using Welding Jig DT8033

A/R Aluminum Rod M18839

3-Do not Grind Flush

Pl 06-02-13 = 4

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SAD 06-02-19

9

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Feb-21

10.0

D2582

Hi-Skid Step Leg Ass'y



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2582 Step Leg Assy B25089-1

Pl 06-02-21 = 4

W/O:		WORK ORDER CHANGES					
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QA: N/C Closed: _____ Date: _____

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Job Number: 25387

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description:

11.0

MS20600AD4W3

Cherry Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total: 64.0000 Each(s)

Pick:

Qty Part Number Description Batch

16 MS20600AD4W3 Rivet *M13767*

RE 06.02.21 = 4

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Rivet Leg Assembly as per Dwg D2351

RE 06.02.21 = 4

13.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

PD 06-02-21 4

14.0

D267334

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2673-34 End Plate *325396*

RE 06.02.22 4

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld Fwd End Plate per QSI 004 & Dwg D2351

A/R Aluminum Rod *M18839 M18838*

RE 06.02.22 4

16.0

QC5/19

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

PD 06-02-24 4

17.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch up Alodine

FF 06.02.24 (4)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
06.02.22	16B 15	grind endcap flush. as per DWG D 2351 and Q51 004	FF	06.02.22	4		
06.02.22	16C	inspect work to current STEP QC 5				U	
		ADD to step 15 permanent change.	E	06.02.23		06.02.22	06.02.22

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 12 Date: 06/03/13
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Job Number: 25387

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

~~Q.m 06-03-07~~ DL 06/03/08

19.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk per Dwg D2351 and QSI 005 4.4

Batch: M 100037

Q.m 06-03-07

20.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FL 0603 07

21.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

22.0

D22301

Mounting Lug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

1 D2230-1 Mounting Lug

B23724A

23.0

D22303

Mounting Lug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

1 D2230-3 Mounting Lug

B24090

24.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 2.4000 f(s)

Pick:

Packing KitQty Part Number Description Batch

1 D2856-400 7.20" Abrasion Strip

B25237B

W/O:		WORK ORDER CHANGES					
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QA: N/C Closed: _____ Date: _____

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Job Number: 25387

Part Number: D350591121

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

AN337A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

2 AN3-37A Bolt M13719

26.0

AN413A

Bolt



Comment: Qty.: 3.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

~~2 AN3-37A~~ Bolt M18369

AN4-13A - M100564

(NCR 054)

1/4/05/25

27.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

4 AN960JD10 Washer M19521

28.0

AN960JD416

Washer



Comment: Qty.: 6.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

6 AN960JD416 Washer M19085

29.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

2 MS21042L3 Nut (or -3) M18917

30.0

MS21042L4

Nut



Comment: Qty.: 3.0000 Each(s)/Unit Total : 12.0000 Each(s)

Pick:

Packing KitQty Part Number Description Batch

3 MS21042L4 Nut (or -4) M17997

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
06-05-25	26	Qty corrected. Change Made	E	06-05-25			06-05-25

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 25387

Part Number: D350591121

Job Number:



Pu 4/3/8 (4)

Seq. #:

Machine Or Operation:

Description:

31.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



SB 06/05/25 re-inspected (4)

Comment: INSPECT 100% KITS FOR COMPLETENESS

SB 06/03/09 (4)

32.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-121

Location: *FG3*

PPP Rev: *C*

Pu 4/3/20 (4)

33.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

SB 06/03/13 (4)

Job Completion



u 06-03-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

DART

DESIGN KE	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2351	REV. E SHEET 1 OF 2
DATE 05.11.14		TITLE HIGH FLOAT STEP ASSEMBLY	SCALE NTS
A	95.02.15	NEW ISSUE	
B	97.05.22	END CAPS CHANGED	
C	97.07.23	ADDED BUSHING AND FACING INFO	
D	98.12.17	CHANGED TO BEND, D2850 REPLACES D2357 & D2358, INCORP. DEO 9084	
E	05.11.14	UPDATE FINISHING NOTE	

D2351 HIGH FLOAT STEP ASSEMBLY PARTS LIST

Part No.	Description	QTY -041	QTY -042
D2351-041	High Float Step Assembly (LH)	X	
D2351-042	High Float Step Assembly (RH)		X
D2244-55.4	STEP EXTRUSION*	1	1
D2582	STEP LEG ASSEMBLY	1	1
D2673-34	STEP END PLATE	1	1
D2850-1	END BRACKET	1	
D2850-2	END BRACKET		1
MS20600AD4W3	RIVETS	16	16

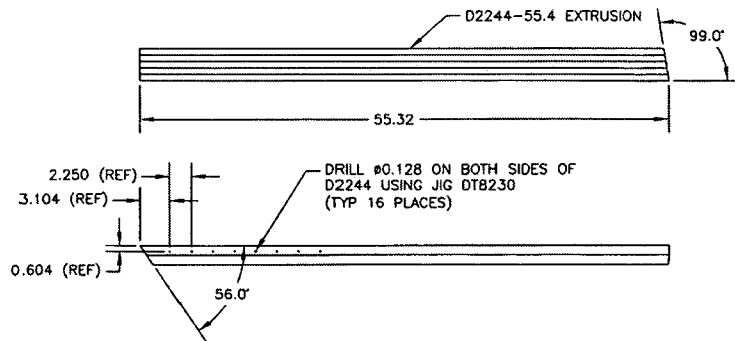
*cut per drawing

LOTT
JAN 17 1995
FREE HAND
ED COPY
ENDMENT
NOTICE
ORDER
25387
RELEASED
05.11.28

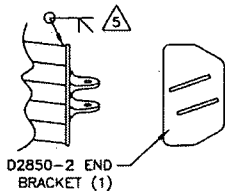
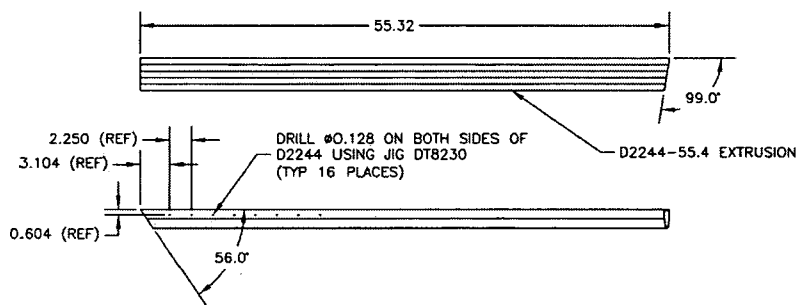
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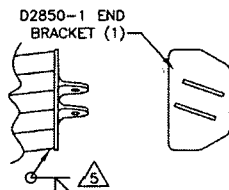
D2351-2 CUTTING/DRILLING DETAIL
RIGHT STEP



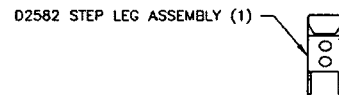
D2351-1 CUTTING/DRILLING DETAIL
LEFT STEP



DETAIL A
SCALE: 1:4



DETAIL B
SCALE: 1:4

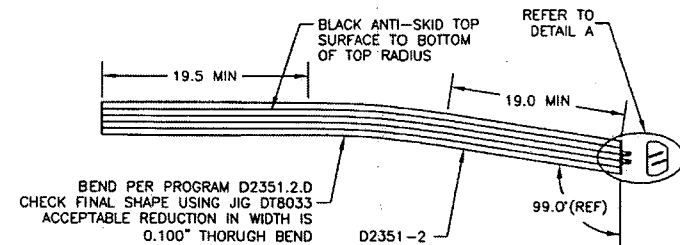


GENERAL NOTES

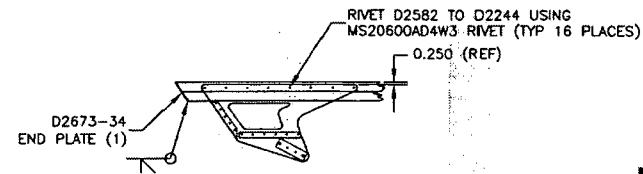
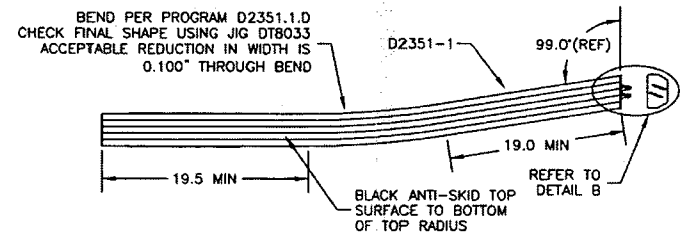
- 1) WELD PER DART QSI 004
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

△ CHAMFER D2244 EXTRUSION 0.075"x45° BEFORE WELDING D2850-1 OR D2850-2 IN PLACE. DO NOT GRIND FLUSH.

D2351-042 BENDING/ASSEMBLY DETAIL
RIGHT STEP



D2351-041 BENDING/ASSEMBLY DETAIL
LEFT STEP



RELEASED
05.11.28

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DESIGN
KE
CHECKED
DATE
05.11.14

DRAWN BY
PH
APPROVED

DART AEROSPACE LTD.
MARKHAM, ONTARIO, CANADA
DRAWING NO.
D2351
TITLE
HIGH FLOAT STEP ASSEMBLY
REV. E
SHEET 2 OF 2
SCALE
1:12

ORDER
25387
NOTICE
END COPY
REVISION
1:12